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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,508	05/29/2001	Richard M. Oraziatti	618-940	3161

20582 7590 02/20/2003

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EXAMINER

DOUGHERTY, THOMAS M

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,508

Applicant(s)

ORAZIETTI, RICHARD M.

Examiner

Thomas M. Dougherty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-19, 21-23, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 20 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 11-14, 16-19, 22, 23, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Meury (JP 5-66014). Meury shows (fig. 1) a piezoelectric ignition mechanism comprising: an assembly having first and second members rotatable (see CONSTITUTION) with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (1) associated with the assembly; and a plexor (6) movably associated with the assembly; wherein when the assembly is in the activated configuration, the plexor (6) is capable of being driven toward the piezoelectric element (1) with sufficient force to impact the piezoelectric element (1) and cause it to produce a spark.

The assembly defines a longitudinal axis; the first and second members are slidable with respect to one another along the longitudinal axis; and the first and second members rotate (rotation occurs when the lug 11 hits the slope part 31 and is driven down the slope) with respect to one another about the longitudinal axis between the activated and deactivated configurations.

The device further comprising an impact spring (14) having first and second ends, the first end associated with the plexor (6), wherein the impact spring (14) is

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capable of being compressed in the activated configuration to drive the plexor (6) toward the piezoelectric unit (1) with sufficient force to cause the piezoelectric element (1) to produce a spark.

When the assembly is in the deactivated configuration, the impact spring (14) cannot be sufficiently compressed to cause the impact spring (14) to drive the plexor (6) toward the piezoelectric element (1) with sufficient force to impact the piezoelectric element (1) and cause it to produce a spark.

The plexor (6) includes at least one lug (11) disposed on its side, and the assembly has at least one longitudinal slot (13 in fig. 12) adapted and configured to receive the lug (11) and control movement of the plexor (6).

The assembly further defines at least one notch (12), and when the assembly is in the activated configuration, the at least one lug (11) is receivable in the at least one notch (12).

When the assembly is in the deactivated configuration, the at least one lug (11) is prevented from entering the at least one notch (38).

The at least one longitudinal slot and the at least one notch are defined in the first member and connected.

The invention further comprises a cam (22) disposed on one of the members (top or bottom part), wherein the cam (22) is adapted and configured to interact with at least a portion (34) of the other member and rotate the first member (valve actuator 34 is rotated downward as well as the rotation noted in the CONSTITUTION) with respect to the second member.

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The ignition mechanism further comprising a push button (valve actuator 34) located on one of the members, the push button (34) having an abutment extending therefrom, wherein the portion of the first member is the abutment.

The cam (22) is disposed on the first member and the cam is dimensioned to interact with an arm (arm of valve actuator 34) disposed on the second member.

The ignition mechanism is used as a lighter (see TITLE).

Meury shows (fig. 1) a lighter (as noted) comprising: a lighter body having a fuel reservoir (inherent) and an actuator for selectively releasing fuel; and a piezoelectric ignition mechanism (1) for igniting the released fuel comprising: an assembly having first (bottom part) and second (top part) members rotatable (as noted above, see also CONSTITUTION) with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (1) positioned on the assembly; a plexor (6) movable disposed in the assembly; and a biasing element (14) associated with the plexor (6); wherein when the assembly is in the activated configuration, the plexor (6) is capable of being driven by the biasing element (14) toward the piezoelectric element (1) with sufficient force to produce a spark.

At least one of the first (bottom) and second (top) members is rotatable (as noted above) inside the lighter body.

The lighter further comprising a cam (22) disposed on one of the members, wherein the cam (22) is adapted and configured to interact with at least a portion (34) of the other member to rotate the first member with respect to the second member.

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The lighter further comprising a push button (valve actuator 34) located on the first member and having an abutment extending therefrom, wherein the cam (22) is disposed on the second member and interacts with the abutment.

Meury shows (fig. 1) a utility lighter comprising: a housing (32) having a handle, a fuel supply, a wand extending away from the handle (structure of 34), a nozzle (35), and an actuator (22) for selectively releasing fuel to the nozzle; and a piezoelectric ignition mechanism (1) for igniting the released fuel which comprises: an assembly having first (bottom) and second (top) members rotatable with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (1) positioned on the assembly; and a plexor (6) movably disposed in the assembly; wherein when the assembly is in the activated configuration the plexor (6) is capable of being driven toward the piezoelectric element (1) with sufficient force to impact the piezoelectric element (1) and cause it to produce a spark and ignite the released fuel.

One of the first (bottom part) and second (top part) members is rotatable (as described above) inside the housing.

The lighter further comprising an impact spring (14) associated with the plexor.

Meury shows a piezoelectric ignition mechanism comprising: an assembly; a piezoelectric element associated with the assembly; a plexor (6) associated with the assembly and rotatable (as noted above) between an activated configuration and a deactivated configuration; and a biasing element (14) associated with the plexor (6); wherein when the plexor (6) is in the activated configuration it is capable of being driven

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by the biasing element (14) with sufficient force to impact the piezoelectric element (1) and cause it to produce a spark.

Claims 1-8, 11-14, 16-19, 22, 23, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by LaForest et al. (US 6,046,528). LaForest et al. show (figs. 1-3) a piezoelectric ignition mechanism comprising: an assembly having first (top or bottom part) and second (bottom or top part) members rotatable (see bottom portion in fig. 8 where A shows rotational displacement of lug component) with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (24) associated with the assembly; and a plexor (28) movably associated with the assembly; wherein when the assembly is in the activated configuration, the plexor (28) is capable of being driven toward the piezoelectric element (24) with sufficient force to impact the piezoelectric element (24) and cause it to produce a spark.

The assembly defines a longitudinal axis; the first (top or bottom part) and second (bottom or top part) members are slidable (telescopically) with respect to one another along the longitudinal axis; and the first (bottom or top part) and second (top or bottom part) members rotate (rotation occurs when the lug 34 advances into the window 38) with respect to one another about the longitudinal axis between the activated and deactivated configurations.

The device further comprising an impact spring (30) having first and second ends, the first end associated with the plexor (28), wherein the impact spring (30) is capable of being compressed in the activated configuration to drive the plexor (28)

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toward the piezoelectric unit (24) with sufficient force to cause the piezoelectric element (24) to produce a spark.

When the assembly is in the deactivated configuration, the impact spring (30) cannot be sufficiently compressed to cause the impact spring (30) to drive the plexor (28) toward the piezoelectric element (24) with sufficient force to impact the piezoelectric element (24) and cause it to produce a spark. Note that when it is in the deactivated position, there is no means to cause such a compression, when compressed the device is being activated.

The plexor (28) includes at least one lug (34) disposed on its side, and the assembly has at least one longitudinal slot (36 in fig. 3) adapted and configured to receive the lug (34) and control movement of the plexor (28).

The assembly further defines at least one notch (38), and when the assembly is in the activated configuration, the at least one lug (34) is receivable in the at least one notch (38).

When the assembly is in the deactivated configuration, the at least one lug (34) is prevented from entering the at least one notch (38).

The at least one longitudinal slot (36) and the at least one notch (38) are defined in the first member (bottom part) and connected.

The invention further comprises a cam (66) disposed on one of the members (top or bottom part), wherein the cam (66) is adapted and configured to interact with at least a portion of the other member and rotate the first member (valve actuator is rotated downward) with respect to the second member.

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The ignition mechanism further comprising a push button (valve actuator 68) located on one of the members, the push button having an abutment extending therefrom, wherein the portion of the first member is the abutment.

The cam (66) is disposed on the first member (top or bottom part) and the cam is dimensioned to interact with an arm (68) disposed on the second member (bottom or top part).

The ignition mechanism is used as a lighter (see col. 1, ll. 7-12).

LaForest et al. show (fig. 1) a lighter (as noted) comprising: a lighter body having a fuel reservoir (col. 5, ll. 27-32 where a fuel supply is noted) and an actuator for selectively releasing fuel; and a piezoelectric ignition mechanism (24) for igniting the released fuel comprising: an assembly having first (bottom or top part) and second (top or bottom part) members rotatable (as noted above) with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (24) positioned on the assembly; a plexor (28) movable disposed in the assembly; and a biasing element (30) associated with the plexor (28); wherein when the assembly is in the activated configuration, the plexor (28) is capable of being driven by the biasing element (30) toward the piezoelectric element (24) with sufficient force to produce a spark.

At least one of the first (bottom or top part) and second (top or bottom part) members is rotatable (as noted above) inside the lighter body.

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The lighter further comprising a cam (66) disposed on one of the members, wherein the cam is adapted and configured to interact with at least a portion of the other member (68) to rotate the first member with respect to the second member.

The lighter further comprising a push button (valve actuator 68) located on the first member and having an abutment extending therefrom, wherein the cam (66) is disposed on the second member and interacts with the abutment.

LaForest et al. show (fig. 1) a utility lighter comprising: a housing having a handle, a fuel supply, a wand extending away from the handle (structure of housing supporting 70), a nozzle (76), and an actuator (68) for selectively releasing fuel to the nozzle (76); and a piezoelectric ignition mechanism (64, 72) for igniting the released fuel which comprises: an assembly having first (bottom or top part) and second (top or bottom part) members rotatable (as noted above) with respect to one another between an activated configuration and a deactivated configuration; a piezoelectric element (24) positioned on the assembly; and a plexor (28) movably disposed in the assembly; wherein when the assembly is in the activated configuration the plexor (28) is capable of being driven toward the piezoelectric element (24) with sufficient force to impact the piezoelectric element (24) and cause it to produce a spark and ignite the released fuel.

One of the first (bottom or top part) and second (top or bottom part) members is rotatable (as described above) inside the housing.

The lighter further comprising an impact spring (30) associated with the plexor (28).

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LaForest et al. show a piezoelectric ignition mechanism comprising: an assembly; a piezoelectric element (24) associated with the assembly; a plexor (28) associated with the assembly and rotatable (as noted above) between an activated configuration and a deactivated configuration; and a biasing element (30) associated with the plexor (28); wherein when the plexor (28) is in the activated configuration it is capable of being driven by the biasing element (30) with sufficient force to impact the piezoelectric element (24) and cause it to produce a spark.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meury (JP 5-66014) or LaForest et al. (US 5,854,530) in view of Chevalier (US D437,732). Given the inventions of either Meury or LaForest et al. as noted above, neither shows a design feature such that either device includes a wand.

Chevalier shows a design patent which is a design for a utility lighter that includes a wand. He does not show any functional feature of the device.

It would have been obvious to one having ordinary skill in the art to use a utility design such as is shown by either Meury or LaForest et al. in the device of Chevalier at the time of his invention in order to allow that design invention to function.

Allowable Subject Matter

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Claim 9, 10, 20, and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not show nor fairly suggest a window in the top part of a rotatable piezoelectric ignition mechanism such that when the assembly is in the deactivated configuration, a side portion of a window contacts the at least one lug and prevents the at least one lug from entering at least one notch. The prior art fails to show an aperture in the housing and an arm disposed such that it is adapted to rotate the second member wherein at least a portion of the arm extends through the aperture.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining prior art cited reads on at least some aspects of the claimed invention. For example Meury in USP 5,059,852 appears to show an arm in fig. 1 with an extension 22 through an aperture.

Direct inquiry concerning this action to Examiner Dougherty at (703) 308-1628.


tmd

February 14, 2003


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